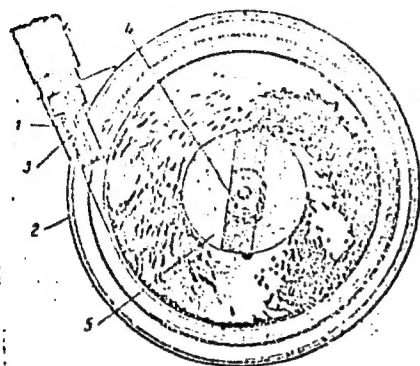ACC NR: AP6033448

Fig. 1. Device for introducing solid inhibitors into oil 1—Connecting pipe for oil inlet; 2—body; 3—nozzle; 4—connecting pipe for oil outlet; 5—beaker with net.

SUB CODE: 13/ SUBM DATE: 13Mar64/

Card 2/2

YUR'YEV, Yu.K.; BELYAKOVA, Z.V.; VOLKOV, V.P.; OSADCHAYA, R.A.;
    SHAYDEROVA, L.P.

Tetraacyloxysilanes in organic synthesis. Part 28: Acylation of
benzene by silicon-β-chloropropionic and σ-chlorobutyric anhydrides.
Part 29: Preparation of organic acid anhydrides from their silicon
anhydrides. Vest.Mosk.un.Ser. 2: Khim. 15 no.1:61-67 '60.

(MIRA 13:7)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.
            (Silicon organic compounds)
            (Anhydrides)
            (Acylation)

88481

15.8111   2209

AUTHORS: Novitskiy, K. Yu., Volkov, V. P., Shaygerova, L. P., and
Yur'yev, Yu. K.

TITLE: Studies in the Furan Series. XI. 2,5-Bis-(chloro-methyl)-
furan in the Synthesis of Symmetric 2,5-Dialkyl Furans

PERIODICAL: Zhurnal obshchey khimii, 1961, Vol. 31, No. 1, pp. 136 - 139

TEXT: The authors synthesized the symmetric 2,5-dialkyl furans by the
reaction of 2,5-bis-(chloro-methyl)-furan with organomagnesium compounds,
in yields of 33 - 56 %. They found the yield to be highly dependent on the
length of the carbon chain and on the nature of the halogen of the alkyl
magnesium halide. The maximum yields of dialkyl furans were obtained with
alkyl magnesium chlorides (46 % with propyl magnesium chloride, and
38 % with butyl magnesium chloride); when using alkyl magnesium bromides,
the yield drops to 37 % with propyl magnesium bromide, and to 29 % with
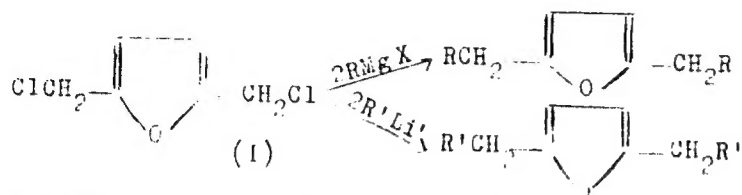butyl magnesium bromide; when using methyl magnesium iodide, the yield is
only 5 %.

Card 1/3

Studies in the Furan Series. XI. 2,5-Bis-
(chloro-methyl)-furan in the Synthesis of
Symmetric 2,5-Dialkyl Furans

88481

S/079/61/031/001/013/025
B001/B066

(I)

$R = CH_3$, C_2H_5, n-C_3H_7, n-C_4H_9, iso-C_4H_9; $R' = C_2H_5$, n-C_3H_7, n-C_4H_9.
Attempts with Grignard reagents from n-octyl bromide, bromo benzene,
benzyl chloride, cyclopentyl- and cyclohexyl chloride were unsuccessful.
5,5'-diphenyl and symmetric diphenyl ethane (18 %) were separated with
phenyl magnesium bromide and benzyl magnesium chloride respectively. In
the reaction of methyl magnesium halides with furfuryl chloride (Ref. 7)
a polycondensation mainly occurs, which yields the polymers presented in
Scheme 2. The yields of the corresponding dialkyl furans in the reaction
of 2,5-bis-(chloro-methyl)-furan with lithium alkyls were 19 - 25 %.
There are 9 references: 4 Soviet, 1 French, 1 Canadian, 1 British, and
3 US.

Card 2/3

88481

Studies in the Furan Series. XI. 2,5-Bis-
(chloro-methyl)-furan in the Synthesis of
Symmetric 2,5-Dialkyl Furans

S/079/61/031/001/013/025
B001/B066

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State
University)

SUBMITTED: February 22, 1960

Card 3/3

NOVITSKIY, K.Yu.; VOLKOV, V.P.; SHAYDEROVA, L.P.; YUR'YEV, Yu.K.

Furan series.   Part 18: 2, 5-Bis(N-alkylazomethine)- and
2, 5-bis(N-arylazomethine)-furans. Zhur.ob.khim. 31 no.10:
3277-3281 0 '61.   (MIRA 14:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
                         (Furan)

YUR'YEV, Yu.K.; ZEFIROV, N.S.; SHAYDEROVA, L.P.

3,6-Endoxo-cyclohexanos and -cyclohexenes. Part 10:
Acetoxymercuration of dimethyl ester of
3,6-endoxo-Δ^7-tetrahydrophthalic acid. Zhur.ob.khim.
33 no.3:818-820 Mr '63.   (MIRA 16:3)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
                (Cyclohexened icarboxylic acid)
                      (Mercuration)

SHAYDKOV, K.

Completeness of a trigonometric system. Usp.mat.nauk 8 no.6:143-153
N-D '53.
                                                        (MLRA 6:12)
                        (Trigonometrical functions)

SHAYDO, N.M., inzh.

Causes of accidents in the "TSentral'naia-Belianka" Mine. Bezop. truda
v prom. 3 no.11:12-13 N '59.   (MIRA 13:3)

1.Gosgortekhnadzor USSR.

                     (Lugansk Province--Mine accidents)

KURCHENKO, A.P., inzh.; SHAYDO, N.M., inzh.

Check the design of fire flaps for mine shafts. Bezop. truda v prom.
6 no.3:8-9 Mr '62.   (MIRA 15:3)

1. Gosudarstvennyy komitet pri Sovete Ministrov Ukrainskoy SSR
po nadzoru za bezopasnym vedeniyem rabot v promyshlennosti i gornomu
nadzhoru.
                     (Mines fires--Safety measures)

ZASTAVENKO, P.Ya., inzh.; SHAYDO, N.M., inzh.

Coal mining and roof control in steep middle-high coal beds.
Bezop.truda v prom. 6 no.6:25-26 Je '62.   (MIRA 15:11)

1. Komitet po nadzoru za bezopasnym vedeniyem rabot v promyshlennosti
i gornomu nadzoru pri Sovete Ministrov UkrSSR.
                    (Donets Basin—Coal mines and mining)

SHAYL., N.M., inzh.; ESTEUZHANIN, F.V., inzh.

Reply to the article by V.P. Shchukin "Create a safety zone
around waste disposal dumps. Bezop. truda v prom. 8 no.11:
49-50 N '64.   (MIRA 18:2)

1. Gosudarstvennyy komitet pri Sovete Ministrov UkrSSR po nadzoru
za bezopasnym vedeniyem rabot v promyshlennosti i gornomu nadzoru.

USTYCHENKO, B.V., nauk.; SHAPRO, N.M., inzh.

Effectiveness of preventive measures against sudden outbursts of rock and gas. Bezop. truda v prom. 8 no.12:3-6 D '64.
(MIRA 18:3)

1. Gosudarstvennyy komitet pri Sovete Ministrov UkrSSR po nadzoru za bezopasnym vedeniyem rabot v promyshlennosti i gornomu nadzoru.

SHAYDOROV, I.

Rapid machine fattening of ducks. Miss.ind. SSSR. 25 no.4:53-54
'54.   (MLRA 7:8)

1. Chernyanskiy ptitsekombinat.
    (Ducks--Feeding and feeding stuffs)

L 35603-65   EWT(d)/EWT(m)/EWP(f)/EPR/T-2/EWA(c)
ACCESSION NR: AP5004966   S/0286/65/000/002/0073/0073

AUTHORS: Karnitskiy, V. V.; Minkin, M. L.; Lozar', A. S.; Shaydorov, P. L.;
Petrova, S. V.; Goryunov, V. G.

TITLE: Device for starting internal combustion engines at low temperatures.
Class 46, No 167704

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 2, 1965, 73

TOPIC TAGS: ignition system

ABSTRACT: This Author Certificate describes a device for starting an internal
combustion engine (example: Y-block diesel). The device has space for an easy-
to-ignite starter liquid which is fed to an intake track. A mixer receives the
intake emulsion, and a compressed air supply turns the liquid into a spray.
The mixer is multichanneled so that the emulsion flows to one or a group of
sprayers. This ensures transmission of the emulsion to any or all cylinders of
the engine block. The device is shown in Fig. 1 on the Enclosure. Orig. art.
has: 1 figure.

Card 1/3

L 35603-65
ACCESSION NR: AP5004966   /

ASSOCIATION: Tsentral'nyy ordena trudovogo krasnogo znameni nauchno-
issledovatel'skiy avtomobil'nyy i avtomotornyy institut (Central Order of the
Trudovoye Krasnoye Znameniye Scientific Research Automobile and Automotive
Institute)

SUBMITTED: 24Dec62   ENCL: 01   SUB CODE: PR

NO REF SOV: 000   OTHER: 000

Card 2/3

L 26380-66

ACC NR: AP6007724   (N)   SOURCE CODE: UR/0413/66/000/003/0135/0135

AUTHORS: Vinokur, S. A.-Sh.; Shayderov, V. A.

ORG: none

TITLE: Device for side launding of ships.   Class 65, No. 178702

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 135

TOPIC TAGS: shipbuilding, drydock, marine engineering, ship launching

ABSTRACT: This Author Certificate describes a device for 'side launching of ships on launching ways. The ways are equipped with slide rollers arranged so that one cannot drift against another. The launching device facilitates construction on underwater parts of the craft. It is built in the form of stationary upper ways. By each extremity of the ship there is a drum with an electromagnetic brake. The brake is kinematically linked with the slide roller by a drag cable. The brake, in interacting through a transmitting synchro with an axially shifting adjustment screw (the brake activator), serves to arrest the advance of the ship. For a complete launch, the device features a guide screw equipped with a movable nut which interacts with the contact device (see Fig. 1).

Card 1/2   UDC: 629.128.3.002.28
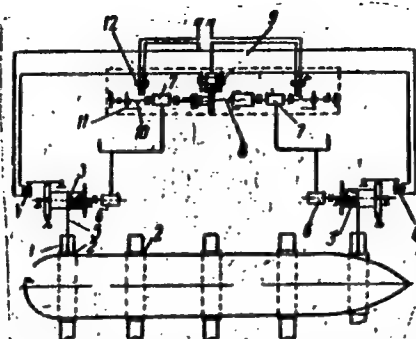
L 26380-66
ACC NR: AP6007724

Fig. 1.   1 - launch ways; 2 - slide roller; 3 - drums;
4 - electromagnetic brakes; 5 - drag cable; 6 - trans-
mitting synchros; 7 - receiving synchros; 8 - adjustment
screw; 9 - contacts; 10 - guide screw; 11 - movable nut;
12 - contact device.

Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 23Jan61

Card 2/2 CC

SHAYLOROV, Yu.I.

Installation for growing plants by the air culture method. Fiziol.
rast. 11 no.2:340-346 Mr-Ap '64.   (MIRA 17:4)

SHAYDOROVA, V.V.

Determination of the amino acid composition of the prepupal
body of bees of different species by paper chromatography.
Nauch. dokl. vys. shkoly; biol. nauki no. 2:85-87 '64.
(MIRA 17:5)

1. Rekomendovana Agrobiologicheskoy stantsiyey "Chashnikovo"
Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

SAVCHENKO, I., inzh.; GOLTVYANITSA, K. [Holtv"ianytsia, K.], inzh.;
       BOGDANOV, M. [Bohdanov, M.], inzh.; SHAYDUK, V., inzh.

       Use of thermal cutters for working granites. Bud.mat.i konstr.
       4 no.6:51-53 N-D '62.   (MIRA 15:12)
                    (Stonecutting—Equipment and supplies)

SHAYDUKOV, G. M.

Cand Phys-Math Sci - (diss) "Solution of systems of differential
equations containing partial derivatives of the second-order
parabolic and elliptical types by the S. A. Chaplygin method."
Kazan', 1961. 9 pp; (Ministry of Higher and Secondary Specialist
Education RSFSR, Kazan' Order of Labor Red Banner State Univ
imeni V. I. Ul'yanov-Lenin); 120 copies; price not given; (KL,
7-61 sup, 221)

S/140/61/000/006/006/007
C111/C444

AUTHOR: Shaydukov, G. M.

TITLE: On the approximative solution of a non-linear problem of the parabolic type

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, no. 6, 1961, 132-141

TEXT: In the n-dimensional domain D of the variables $x_1, \ldots, x_n$ and for $t_0 \leqslant t \leqslant T$ a continuous function $u \equiv u(x_1, \ldots, x_n; t)$ is searched which satisfies

$$L(u) = \sum_{i;j=1}^{n;n} a_{ij} \frac{\partial^2 u}{\partial x_i \partial x_j} = F(x_1, \ldots, x_n; t; \frac{\partial u}{\partial t}; \frac{\partial u}{\partial x_1}, \ldots, \frac{\partial u}{\partial x_n}), (1)$$

and the conditions $u\big|_{t=t_0} = f(x_1, \ldots, x_n)$, $u\big|_S = \varphi(x_1, \ldots, x_n; t)$, S being the boundary of D.

In the paper of the author (Ref. 1: Resheniye differentsial'nykh

Card 1/5

On the approximativ solution . . .

ura-vneniy v chastnykh proizvodnykh parabolicheskogo tipa metodom
S. A. Chaplygina [The solution of partial differential equations of
the parabolic type by the method of S. A. Chaplygin] Tr. Kazansk. s.-kh.
in-ta, t. I, vyp. 37, 1958) it was shown that this problem can be solved
by the Chaplygin method, and an algorithm for the determination of
the upper and the lower approximations was given. The upper function
$u_m \equiv u_m(x_1, \ldots, x_n; t)$ e. g. satisfies the equation

$$\begin{cases} L(u_m) = F_u(u_m - u_{m-1}) + F_q \frac{\partial(u_m - u_{m-1})}{\partial t} + \sum_{i=1}^{n} F_{p_i} \frac{\partial(u_m - u_{m-1})}{\partial x_i} + F, \\ u_{m|S} = 0, \qquad u_{m|t=t_0} = 0, \qquad m = 1, 2, \ldots, \end{cases} \qquad (2)$$

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S/140/61/000/006/006/007
On the approximative solution . . .   C111/C444

where $F \equiv F(x_1, \ldots, x_n; t; u_{m-1}; \dfrac{\partial u_{m-1}}{\partial t}; \dfrac{\partial u_{m-1}}{\partial x_1}, \ldots, \dfrac{\partial u_{m-1}}{\partial x_n})$

$F_u \equiv \dfrac{\partial F}{\partial u}$, $q \equiv \dfrac{\partial u}{\partial t}$, $p_i \equiv \dfrac{\partial u}{\partial x_i}$, $i = 1, 2, \ldots, n$. The initial function

$u_o \equiv u_o(x_1, \ldots, x_n; t)$ is determined by the solution of the problem

$$\begin{cases} L(u_0) = F(x_1, \ldots, x_n; t; 0, \ldots, 0) + F_u(x_1, \ldots, x_n; t; 0, \ldots, 0) u_0 + \\[2mm] + F_q(x_1, \ldots, x_n; t; 0, \ldots, 0) \dfrac{\partial u_0}{\partial t} + \sum_{i=1}^{n} F_{p_i}(x_1, \ldots, x_n; t; 0, \ldots, 0) \dfrac{\partial u_0}{\partial x_i}, \qquad (A) \\[2mm] \qquad u_{0|S} = 0, \qquad u_{0, t=t_0} = 0. \end{cases}$$

Card 3/5

On the approximative solution . . .

As it is not possible generally to find the strict solution of (2),
(2) has to be solved apprimatively. But the error of u_m influences
the determination of u_{m+1}, etc. Because of this the stability of the
equations (2) has to be investigated and the convergence of the
solutions of the "perturbed" equations (2) to the strict solution of
(1) has to be proved. The present article is dedicated to the investi-
gation of these questions. One supposes that: D is bounded, S is
sufficiently smooth, a_{ij} and F are bounded and continuous, F possesses
finite partial derivatives of first and second order with respect to
u, p_i and q, $F_u \geqslant 0$, $F_q \geqslant C > 0$, $\sum a_{ij} \propto_i \propto_j$ is strictly positive,
$d^2 F$ is positive and bounded with respect to u, p_i and q. Under these
assumptions it is shown that it is possible to construct in finitely
many steps 1 function sequences

$$\left\{ \overset{\approx}{u}{}^{(i)}_m \right\}^{\infty}_{m=1} \ , \qquad i = 1, \ldots, 1-1$$

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On the approximative solution .

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C111/C444

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each of them converges on its interval $\left[T_i, T_{i+1}\right]$ $(T_1 = T)$ to the strict solution. Out of these 1 sequences one constructs a sequence which converges on $\left[0, T\right]$ to the exact solution of the non-linear problem (1).

The author mentions S. N. Bernshteyn.

There are 3 Soviet-bloc references.

ASSOCIATION: Kazanskiy sel'skokhozyaystvennyy institut im. M. Gor'kogo
(Kazan' Agricultural Institute im. M. Gor'kiy)

SUBMITTED: December 22, 1959

Card 5/5

SHAYDUKOV, K. M.

Dissertation: "The Existence of an Orthonormed Basis in a Class of Polynomials."
Cand Phys-Math Sci, Kazan' State U, Kazan', 1954. (Referativnyy Zhurnal-Matematika,
Moscow, Aug 54)

SO: SUM 393, 28 Feb 1955

SHAYDULLIN, R.M.; KALUZHSKIKH, A.L.

The use of wooden bearings on mills. TSvet. met. 37 no.10:76-79 O '64.
(MIRA 18:7)

SHAYDUR, M.Ya.

The collective-farm villag of Bogdanovka is changing its
appearance. Sil'.bud. 9 no.6:3-4 Je '59.   (MIRA 12:9)

1. Zaveduyushchiy kolkhoza im. Karla Marksa, selo Bogdanovka,
Priluts'kiy rayon Chernigivs'kov
            (Bogdanovka--Farm buildings).

* For the Degree of Doctor of Physico-mathematical Sciences

SHAYDUROV, G.F.

Viscosity and elasticity of paper pulp. G. F. Shaidurov.
Colloid J. (U.S.S.R.) 17, 379-83 (1955) (Engl. translation).— MT
See C.A. 50, 2976d.   B. M. R.

SHAYDUROV, G.F.

Viscosity and elasticity of paper pulp. G. F. Shaidurov (State Univ., Molotov). *Kolloid. Zhur.* 17, 307-402 (1955).—A paper pulp for newsprint was dild. and studied in a coaxial-cylinder viscometer. The curves of velocity gradient (du/dr) versus stress P were linear at high P, and extrapolation of the linear part led to the origin of coördinates; hence, the limiting viscosity η_∞ of the suspensions was independent of du/dr. For 0 2, 0.6, and 1.2% suspensions, η_∞ was 0.02, 0.09 and 0.20 poises, resp. From the growth and decay of deformation on rapid application and removal of stress, the rheological consts. of 1% pulp suspension were calcd.; the moduli of instantaneous elastic deformation and of viscoelastic shear were almost equal (10-11 dynes/sq. cm.), viscosity of irreversible flow was 689 poises, and viscosity of viscoelastic deformation about 100 poises.

J. J. Bikerman

57-28 4 29/39

AUTHOR: Shaydurov G F

TITLE: On the Convective Heat Transfer Through a Spherical Cavity
            (O konvektivnom teploperenose cherez sharovuyu polost')

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki. 1958 Vol 28, Nr 4, pp 855-661
            (USSR)

ABSTRACT: Within the domain of Rayleigh's numbers from 10^4 to 10^6 the
            author in an experimental way investigated the steady heat
            convection in a spherical cavity which is enclosed in a
            heat-conducting massive body. The liquid velocity field in
            the cavity and the heat flow through the cavity were examined
            under different conditions of heating. The obtained results
            are characteristic of the laminar boundary layer. The tests
            were divided into thermal and hydrodynamic tests. The experi-
            ments in the position without convection of the model (heat-
            ing exactly from above) yielded the possibility of evaluating
            the errors of the experiment. In the convective positions of
            the model the following results were attained:) 2 forms
            of motion of the liquid exist a) The first form is observed
Card 1/3   under all conditions of heating (except in the case without

On the Convective Heat Transfer Through a Spherical Cavity

convection) the particles of liquid move in the vertical plane ascend along the warm wall of the cavity and descend along the cold one. b) The second form is sometimes observed during heating from below: the liquid ascends from below along the opposite walls and descends along the other opposite walls. 2) Two cases of the distribution of temperature correspond to the two forms of motion. In the case of the first form applies $f(0\ \varphi) = a_0^{(o)} + a_2^{(1)} \cos 0 + a_2^{(1)} \cos \varphi$

$\sin 0$ where $a_2^{(o)}$, $a_2^{(1)}$ $a_1^{(1)}$ denote factors which are determined from the experiment. φ and 0 denote the length and the pole distance in the system of spherical coordinates respectively. In the case of the second form a double periodicity of the temperature with respect to length occurs. In this second case of the type of motion the temperature distribution can be described by expansion with respect to spherical functions of higher_order. The equation (2) for the mean Nusselt coefficient Nu is derived where the positive value corresponds to the roots of Nusselt's number at the "cold" wall and the negative one to that at the "warm" wall. It is shown that with formula (2) the mean Nusselt

Card 2/3

57-28-4-29/39

On the Convective Heat-Transfer Through a Spherical Cavity

coefficient for the second form of motion can be calculated, by setting $a_1^{(1)} = 0$, which causes an error of not more than 0.2 %. Summarizing then author states that in spite of the complicated nature of the convection motion of the liquid in a spherical cavity the approximation for the boundary layer are valid in a number of cases. G. A. Ostroumov, Professor, showed continuous interest for the work. There are 5 figures and 9 references, 4 of which are Soviet.

ASSOCIATION: Permskiy gosudarstvennyy universitet
              (Perm' State University)

SUBMITTED: March 1, 1957

Card 3/3

SOV/170-59-3-12/20

AUTHOR: Shaydurov, G.F.

TITLE: The Measurement of the Complex Thermal Field of a Wall
             (Izmereniye slozhnogo termicheskogo polya stenki)

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 3, pp 88 - 91 (USSR)

ABSTRACT: Thermocouples are most convenient and reliable devices for
             measuring the temperature of the surface of solid bodies, in
             particular those which are poor heat conductors. In some
             cases it is necessary to place the junctions of thermocouples
             within the body wall lest the motion of a liquid flowing in
             the body should be perturbed. In order to take properly into
             account the arising errors, all thermocouples should be
             placed in thin rectilinear channels in the wall, perpendicular
             to the surface under investigation in the points of measure-
             ments. The temperature of a thermocouple junction installed
             in this way will differ from the true value of the stationary
             temperature t of the wall in the measurement point by an
             amount $\triangle$ t. As has been established by experiments, the
             magnitude of this temperature corrections is proportional to
             the normal component A of the temperature gradient of a non-
             perturbed stationary thermal field on the surface of a body

Card 1/2

SHAYDUROV, G.F.

Stability of a convection boundary layer in a liquid filling
a horizontal cylinder. Inzh.-fiz.zhur. no.12:68-71
(MIRA 13:4)
D '59.

1. Gosudarstvennyy universitet, Perm'.
(Hydrodynamics)

28912
S/170/61/004/011/013/020
B108/B138

24,5200

AUTHOR: Shaydurov, G. F.

TITLE: Thermal instability of a liquid in a horizontal cylinder

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 11, 1961, 109 - 113

TEXT: Experiments were carried out with a water-filled cylindrical hollow
(9.11 mm wide, 80 mm long) drilled out of a 30 by 30 by 80 mm plexiglass
block. The ends were closed with glass. A cooling and a heating copper
plate were attached to the long sides of the block, which was placed in
such a way that the flow of heat was directed straight upward. Sixteen
thermocouples were fixed to block and hollow. The flow was made visible
by adding aluminum filings to the water. The temperature gradients in the
fluid were studied optically (Ostroumov G. A., Svobodnaya konvektsiya v
usloviyakh vnutrenney zadachi, Gostekhizdat, 1952). The temperature
distribution in the wall of the cavity is described by
$T = a_0 + a_1\cos\varphi' + b_1\sin\varphi'$, where the Fourier coefficient has the meaning
of the temperature average throughout the hollow. $a = \sqrt{a_1^2 + b_1^2}$ is the

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Thermal instability of a liquid in a ...   S/170/61/004/011/013/020
B108/B138

temperature of the hottest point at the wall counted from temperature a_o.
φ' is the angular distance from the radius vector normal to the heating
plate. The local Nusselt number was calculated from the formula

$$Nu = -\frac{\pi R \lambda_1}{2 a \lambda} \left(\frac{\partial T_1}{\partial r}\right)_R.$$ It was found to obey a law of the form

$Nu = Nu_o \cos\psi$. R denotes the radius of the hollow. $(\partial T_1/\partial r)_R$ - the radial
temperature gradient outside the hollow, $\lambda_1/\lambda = 1/3$ - the ratio of the
molecular heat conductivities of block and liquid. Nu_o is the maximum
value of the Nusselt number, ψ the angle from this maximum. The observed
circular motion of the liquid agrees with theory. It was found, however,
that a three-dimensional "cellullar" flow also occurs, becoming pre-
dominant at Rayleigh numbers of over 4000. The critical Rayleigh number
of this "cellullar" motion could not be determined. Docent Ye. M.
Zhukhovitskiy is thanked for discussions. There are 2 figures and 8
references: 4 Soviet and 4 non-Soviet. The three references to English-
language publications read as follows: Rayleigh J. W. Phil. Mag., 32,
529, 1916; Schmidt R. I., Milverton S. W. Proc. Roy. Soc., A. 152, 586,
Card 2/4

28912

S/170/61/004/011/013/020
Thermal instability of a liquid in a ...   B108/B138

1935; Pellew A., Southwell R. V. Proc. Roy. Soc., A, <u>176</u>, 312, 1940.

ASSOCIATION: Gosudarstvennyy universitet, g. Perm' (State University, Perm')

SUBMITTED: March 6, 1961

Fig. 1. $\lg \bar{N}u$ (I), φ (II), and V (III) versus logarithm of Rayleigh number. Legend: $\bar{N}u = \frac{2}{\pi} Nu_0$. $V = vR/2\Upsilon$ (Υ - dynamic viscosity). φ in radians. (1) convection, (2) equilibrial motion, heating from underneath, (3) equilibrial motion, heating from above.

Card 3/4

S/170/62/005/012/008/008
B104/B186

AUTHOR: Shaydurov, G. F.

TITLE: Measuring the temperature of a wall

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 5, no. 12, 1962, 86 - 90

TEXT: When measuring the surface temperature of a solid it is frequently
necessary to insert the thermocouple through the solid untill it reaches
the surface. The heat flow in the thermocouple leads may be a source of
errors which can be corrected by calculating the correction factor
$t_o = kA_o$ (G. F. Shaydurov, IFZh, no. 3, 1959). The experimental deter-
mination of k is sometimes difficult. The error was estimated by
measuring the temperature distribution in a $210 \cdot 160 \cdot 32$-mm paraffin block
by means of eight differential thermocouples with leads of 0.05 mm diam.
This block was heated along its short axis by a metal rod imbedded in
the block. The rod was heated on its free end. The results obtained
furnish the empirical solution $(\partial t_1/\partial r)_R = -ct/nR$. n is 1/2 when the
heat is exchanged between the surface studied and a gas; it is 1/4 for

Card 1/2

Measuring the temperature of a wall

heat exchange with a slightly viscous liquid. If the temperature of the rod depends only on its longitudinal coordinate x, if the end of the rod and the surface of the solid are in contact with a liquid, and if convective heat transfer exists, then the following relation holds:

$t_o = \frac{1 - \delta}{Bi + mR}$ AR where R is the radius of the rod, Bi the Biot number, $\delta = Bi/Bi_1$. Hence the sign of the temperature correction is determined by those of $1 - \delta$ and of A. This relation is discussed for several special cases ($Bi - Bi_1$, $Bi \ll mR$, $Bi \gg mR$).

$t_o \approx \frac{\lambda' - 1}{m\lambda'}$ A holds for a gaseous medium. Since the leads of thermocouples are of metal ($\lambda' \gg 1$), $t_o \approx \frac{A}{m} = AR \sqrt{n\lambda'/2c}$ is of special interest.

There are 2 figures.

ASSOCIATION: Gosudarstvennyy universitet imeni A. M. Gor'kogo, g. Perm'
(State University imeni A. M. Gor'kiy, Perm')

SUBMITTED: July 2, 1962

Card 2/2

L 41775-65 EWT(1)/EPF(c)/EPF(n)-2/EWG(m)/EPR Pr-4/Ps-4/Pu-4 WW

ACCESSION NR: AP5005757

AUTHOR: Khlebutin, G. N.; Shaydurov, G. F.

TITLE: Thermal convection in a vertical annular tube

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 8, no. 1, 1965, 3-6

TOPIC TAGS: heat convection, heat exchange, convective flow, Nusselt number, Rayleigh number

ABSTRACT: The authors consider convective liquid flow in a vertical annular tube heated from below. Such tubes are frequently used in heat-exchange apparatus and are therefore of appreciable interest. Two models were tested, made of glass or celluloid and filled with distilled freshly boiled water or gasoline (B=70). The tubes were heated from below with a coil fed from a stabilized source, and cooled from above with a thermostatically controlled refrigerating unit. Qualitative visual and photographic investigations have shown that when the heater is located exactly at the bottom of the tube, two types of liquid motion can exist either separately or simultaneously: circular motion, the direction of which is determined by random factors, and cellular motion, in which the heated liquid flows out

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L 41775-65

ACCESSION NR: AP5005757

of the heated area to the right and to the left in unequal streams. The ratio of cellular to circular motion varies with the angle at which the heater is placed. The experiments have also shown that the temperatures of the left and right sides of the annular tube are approximately constant. Assuming constant temperature and essentially circular motion of the liquid, expressions are obtained for the velocity profile, the mass flow rate of the liquid, and for the heat flux. The Nusselt number is found to be proportional to the Rayleigh number ($\overline{Nu} = 0.125$ Ra), in agreement with other experiments made at Ra < 16,000. Orig. art. has: 2 figures, 3 formulas, and 1 table.

ASSOCIATION: Gosudarstvennyy universitet im. A. M. Gor'kogo, Perm' (Perm' State University)

SUBMITTED: 04May64   ENCL: 00   SUB CODE: TD, ME

NR REF SOV: 002   OTHER: 000

am/

Card 2/2

KRIEPTLIN, ... , SHAVLENO ...

p-... question in ... ... in ... the ... .
... ...   NIRA 18.9,

... ... copy ... ... Perm'.

L 44114-66   EWT(1)   DJ
ACC Nr: AP6028323   SOURCE CODE: UR/0040/66/030/004/0699/0704

44
B

AUTHOR: Gershuni, G. Z.; Zhukhovitskiy, Ye. M.; Shaydurov, G. F.

ORG: None

TITLE: The Convective Instability of a Fluid in Connected Vertical Channels

SOURCE: Prikladnaya matematika i mekhanika. v. 30, no. 4, 1966, 699-
704

TOPIC TAGS: Heat convection,fluid thermal Instability

21

ABSTRACT: An exact solution is presented of the problem of thermal instability
of a fluid in two vertical parallel plane channels separated by a solid mass.
Critical values were found for the Rayleigh number determining the stability limit, and
its dependence on the thermal conductivity of the fluid and the mass and the distance
between the channels. Orig. article has: 4 figures and 24 formulas.   (AV)

SUB CODE: 20/ SUBM DATE: 08Jan66/ ORIG. REF: 008/   OTH REF: 003

Card 1/1 egf

ACC NR: AP7003259 (N) SOURCE CODE: UR/0207/66/000/006/0103/0104

AUTHOR: Sorokin, M. P. (Perm'); Khlebutin, G. N. (Perm'); Shaydurov, G. F. (Perm')

ORG: none

TITLE: Stability of fluid flow between two rotating spherical surfaces

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 6, 1966, 103–104

TOPIC TAGS: fluid flow, flow stability, boundary layer flow

ABSTRACT: In 1961 it was found that the flow of liquid between two concentric spheres, the inner one in motion and the external one fixed, becomes unstable at the sphere radius ratio $r_2/r_1 = 2$ with a Reynolds number of about 100 ($R = r_1^2 \omega/v$, where ω is the angular velocity of the rotating sphere and v is kinematic viscosity of the liquid).   The solution was sought in powers of the Reynolds number; since the applicability of this method when R is approximately 100 is not obvious, an experiment was set up to test the theory.   A special device was constructed with an inner sphere of steel, an external sphere of organic glass, and water or commercially pure glycerine as the fluid.   Very precise measurements are possible.   Observations showed that there was no qualitative difference in fluid flow at all Reynolds numbers studied from the flow previously found in the second approximation.   Considerably less intense motion in the meridian plane is imposed on the circular horizontal motion, i.e., on

Card 1/2

ACC NR: AP7003259

the inner sphere the fluid flows from the poles to the equator, and in the other
direction on the outer sphere. At high values of ω the colored fluid envelopes the
surfaces of both spheres in a thin layer; formation of a boundary layer may be as-
sumed. The experiments disclosed no phenomena indicating impaired stability of liquid
flow. In the Reynolds number range where impaired stability was expected according to
Yu. K. Bratukhin (PMM, vol.25, No. 1, 1961) there is smooth, noncritical transition
from the patterns characteristic of slow flows to those of the boundary layer. The
results obtained may be of value for viscosimetry. Orig. art. has: 2 formulas and
2 figures.

SUB CODE: 20/ SUBM DATE: 06Aug65/ ORIG REF: 005/ OTH REF: 002

Card   2/2

S/044/62/000/003/068/092
C111/C444

AUTHOR: Shaydurov, G. S.

TITLE: The treatment of observations which have been made on a sphere

PERIODICAL: Referativnyy zhurnal, Matematika, no. 3, 1962, 46, abstract 3V231. ("Uch. zap. Permsk. un-t", 1961, 19, no. 3, 9-13)

TEXT: One proposes a scheme of the solution of the linear algebraic equation system

$$\sum_{k=1}^{z} (t_k - f_k) \frac{\partial f_k}{\partial a_{nm}} = 0 \quad (m = 0, 1, \ldots, n)$$

$$\sum_{k=1}^{z} (t_k - f_k) \frac{\partial f_k}{\partial b_{nm}} = 0 \quad (m = 1, 2, \ldots, n).$$

The determination of the coefficients of the series expansion in terms of spherical harmonics of the quantity which is to be measured, in the

Card 1/2

The treatment of observations which ...   S/044/62/000/003/068/092
C111/C444

mathematical treatment of observations made on a sphere, leads to such a system. It is pointed out, that it be advantageous to choose the observation points in the intersection points of equidistant (in the sense of the angular distances) parallels and meridians, where the number of the observation points on every parallel and on every meridian has to be a multiple of two or four; such a choice of the observation points permits to simplify the equation system and to shorten the calculation. i one of the possible variants of the distribution of the observation ints one gives a table for the determination of the coefficients of the series expansion up to the third order inclusively.

[Abstracter's note: Complete translation.].

Card 2/2

SHANDURA, P.S., inzh.; SVALUKHIN, V.G., inzh.

System for contactless hotbox detection. Trudy TSNII MPS no.289:
87-97 '65.   (MIRA 18:12)

L 6918-65   EWT(1)/T/EWP(k)   Pf-4/P1-4   SSD/AEDC(e)/AFETR/AFWL/ASD(a)-5/
ESD(gs)/ESD(t)
ACCESSION NR: AR4039932   S/0058/64/000/004/H058/H058

SOURCE: Ref. zh. Fiz., Abs. 4Zh398   59

AUTHORS: Shaydurov, V. I.; Andronova, S. I.

TITLE: Influence of electric field on the propagation speed of
ultrasound waves in solutions

CITED SOURCE: Tr. Vost.-Sib. tekhnol. in-ta, vy*p. 1, 1962, 11-18

TOPIC TAGS: ultrasonic wave propagation, electric field, sodium
chloride, electrolyte, diffraction grating

TRANSLATION: The effect of longitudinal and transverse electric
field (relative to the ultrasound propagation direction) on the
velocity of ultrasound in a solution of NaCl electrolyte was inves-
tigated at different concentrations. The investigation was by the
method of light diffraction by an ultrasonic grating. The procedure

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ACCESSION NR: AR4039932

consists in photographing the diffraction patterns in the absence
of an electric field and in its presence. The effect of a weak
electric field on the ultrasound velocity in the solution was not
observed. Nor was the effect observed on increasing the concentra-
tion of the solution. The results obtained are preliminary. The
experiments will be continued with stronger fields. I. Chaban.

SUB CODE: GP   ENCL: 00

Card   2/2

SHAIDUROV, V. S.

Dissertation: "Methods of Improving the Yield of Alfalfa Seeds Under Trans-Volga
Conditions."   Cand Biol Sci, Inst of Plant Physiology imeni K. A. Timiryazev, Acad
Sci USSR, Moscow, Oct-Dec 53.   (Vestnik Akademii Nauk, Moscow, Jun 54) .

SO: SUM 318, 23 Dec 1954

L 25787-66   EWT(1)   SCTB   DD

ACC NR: AP6015917   SOURCE CODE: UR/0216/65/000/003/0388/0391

AUTHOR: Shaydurov, V. S.--Shaidurov, V. S.

ORG: Institute of Plant Physiology im. K. A. Timiryazev, AN SSSR (Institut fiziologii rasteniy AN SSSR)

TITLE: Intensity of photosynthesis as a function of temperature differences

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 3, 1965, 388-391

TOPIC TAGS: photosynthesis, plant physiology

ABSTRACT: The author's methods for measuring intensity of photosynthesis, transpiration and temperature were described earlier (Shaydurov, 1962). In the experiments described, leaf temperature was measured at the under-surface, while the temperature of the surrounding air was measured at 3 mm below the under-surface of the leaf. The test was run with oats on a cloudy day with uniform radiation. The size of the temperature difference affected the intensity of photosynthesis. The smaller the air-leaf temperature difference, the greater the intensity of photosynthesis. The highest value for the intensity of photosynthesis (21.9 mg CO_2 per sq dkm per hour) was observed at the smallest temperature difference ($0.8^{\circ}C$). The same dependence was observed with wheat and barley. Experiments with rye showed that

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L 25787-66

ACC NR: AP6015917   D

the pattern was retained even in the 5-9°C range.   In subsequent experiments
it was shown that intensity of photosynthesis also depended on the difference
in temperature between the upper and lower surfaces of the leaf: the
greater the temperature difference, the greater the intensity of photo-
synthesis.   This result was confirmed even at an altitude of 3,860-4,700
meters above sea level.   The author concludes that the effect of temperature
on photosynthesis consists of three factors: leaf temperature, the differ-
ence in temperature between the leaf and the surrounding air, and the
difference in temperature between the upper and lower sides of the leaf.

Orig. art. has: 5 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: 21Feb62 / ORIG REF: 007

Card 2/2 CC

SHAKHOV, A.A.; MISHUSTINA, N.Ye.; SHAYDUROV, V.S.

Diurnal dynamics of pigments in plants of polar regions. Izv.
AN SSSR. Ser.biol. no.2:279-286 Mr-Ap '60.   (MIRA 13:6)

1. Institute of Plant Physiology, Academy of Sciences of the
U.S.S.R., Moscow.
          (ARCTIC REGIONS--PLANTS, EFFECT OF LIGHT ON)
                 (COLOR OF PLANTS)

S/169/62/000/003/030/098
D228/D301

3.6/50

AUTHOR: Shaydurov, V. S.

TITLE: Radiation and photosynthesis in Zapolyar'ye

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 65, ab-
stract 3B457 (V sb. Aktinometriya i atmosfern. optika,
L., Gidrometeoizdat, 1961, 22-24)

/ Abstracter's note: Complete translation. /

Card 1/1

S/196/62/000/008/008/017
E032/E514

27 110

AUTHOR: Shaydurov, V.S.

TITLE: On radiation and photosynthesis in polar regions

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika,
no.8, 1962, 1, abstract 8V5. (Sb. "Aktinometriya
i atmosfern. optika". L., Gidrometeoizdat, 1961,
22-24)

TEXT: Reports results of studies of the growth and
development of plants under polar conditions. At low air
temperatures the leaves of plants absorb more solar energy than
at normal temperatures. At low light intensity (in the evening,
at low positions of the sun) the plants utilise solar energy more
efficiently than during daytime. A large fraction of the
absorbed radiant energy is lost in transpiration (95 to 99%).

ASSOCIATION: In-t fiziologii rasteniy, Moskva
(Institute of Plant Physiology, Moscow)

[Abstractor's note: Complete translation.]

Card 1/1

SHAYDUROV, V.S.

Dependence of the intensity of photosynthesis on the gradient of temperature between leaves and the surrounding air. Zhur. ob. biol. 23 no.2:148-150 Mr-Ap '62.   (MIRA 15:5)

1. Institute of Plant Physiology, U.S.S.R., Academy of Sciences.
                    (PHOTOSYNTHESIS)

SHAYDUROV, V.S.

Decomposition of cellulose in peat soils brought under cultivation.
Pochvovedenie no.12:79-82 D '62.   (MIRA 16:2)

1. Institut fiziologii rasteniy imeni Timiryazeva.
          (Peat soils)   (Cellulose)

FEDOROVA, L.L.; SHAYDUROV, V.S.; STANKO, S.A.

Efficiency of the action of a herbicide mixture in forage cabbage
plantations. Fiziol. rast. 9 no.6:735-737 '62. (MIRA 15:12)

1. Polar Experimental Station of All-Union Institute of
Plant Growing, Khibiny and K.A. Timiriazev Institute of Plant
Physiology, U.S.S.R. Academy of Sciences, Moscow.
                    (Murmansk Province—Cabbage)
                        (Herbicides)

SHAYK , GULI. . . NYAN, G.R.

Red und black snow on Mount Aragats. Izv. ... . .
... . 00 .. 64.

.. botanical Institut AN Armyan.SSR . .re.

SH. ??? ... .

... tion between the intensity of photosynthesis and temperature
... law, ... fiz.-khim. no.3:368-73. My-Je '65.   (MIRA 18:5)

... Institut fiziologii rasteniy im. K.A.Timiryazeva AN SSSR.

Vertical zones of the Khibiny Mountains and the fluctuations
of the upper forest boundary. Izv. AN SSSR. Ser. geog. no.3:
57-70. My-Je '65. (MIRA 18:6)

. Karel'skiy institut lesa, Petrozavodsk.

SYCHEVSKAYA, V.I.; SHAYDUROV, V.S.

Body temperature in some synanthropic flies in the Eastern Pamirs.
Zool. zhur. 44 no.5:779-783 '65.   (MIRA 18:6)

1. Uzbekskiy institut meditsinskoy parazitologii i gel'mintologii,
Samarkand i Institut fiziologii rasteniy AN SSSR, Moskva.

SHAKHOV, A.A.; SHAYDUROV, V.S.

Energetics of photosynthesis in plants during the polar day. Zhur.
ob.biol. 20 no.6:418-427 N-D '59.   (MIRA 13:4)

1. Institute of Plant Physiology, Academy of Sciences of the
U.S.S.R., Moscow.
          (ARCTIC REGIONS--PHOTOSYNTHESIS)

L 14296-66   EWT(1)/FS(v)-3   SCTB   DD/RD

ACC NR: AT6003882   SOURCE CODE: UR/2865/65/004/000/0474/0486

AUTHOR: Shakhov, A. A.; Shishchenko, S. V.; Stanko, S. A.; Shaydurov, V. S.;
Golubkova, B. M.

ORG: none

TITLE: Ultraviolet irradiation of plants as a problem of space phytophysiology

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii,
v. 4, 1965, 474-486

TOPIC TAGS: plant physiology, UV irradiation, photosynthesis, space biologic
experiment, plant growth, radiation plant effect

ABSTRACT: The purpose of this review article, which includes results of many
experiments, is to explore some aspects of the influence of ultraviolet
radiation on photosynthesis, and to emphasize this area of investigation in
space biology. In the first group of experiments described, plants grown
under conditions of normal polar illumination were irradiated additionally
with ultraviolet and infrared light, in most cases simultaneously. Ultra-
violet irradiance ranged from $10-30$ $\mu w/cm^2$. Electron microscopy of

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L 14296-66
ACC NR: AT6003882

chloroplasts separated from these plants showed that shortwave UV-
irradiation changes the submicroscopic structure of chloroplasts. But, owing
to the photoreactivation capacity of plants, some recovery from injuries
occurs. Thus chloroplasts of some plants are fairly resistant to artificial
UV-irradiation during the polar day.

A second series of experiments was conducted at an altitude of 3200 m,
where the level of natural ultraviolet radiation is higher than at sea level.
When radishes were subjected to additional artificial UV-irradiation daily
for 10 minutes (irradiance of 1700 erg/cm^2), changes in chloroplast
structure and pigment content were observed. Changes in the pigment
content, determined by paper chromatography and spectrophotometry,
depend on the ultraviolet wavelength, the duration of irradiation, stage of
development of the plant, etc.

More study of the complex effects of UV-irradiation on plants is
urgently needed. Preliminary studies by the authors showed that in
chloroplasts of cabbage, beet, bean, turnip, and pea leaves, pigment con-
tent increased during short-term UV-irradiation, and decreased when the

Card 2/3

L 14296-66
ACC NR: AT6003882

exposure was longer. Studies conducted at high altitude laboratories have
established that when natural ultraviolet irradiance is high, absorption by
leaves of radiant energy from ultraviolet and infrared rays increases.
These data indicate that plants growing in extreme conditions (such as space-
flight) use radiant energy in a wider spectral band for their vital activity.
It has been observed that photosynthesis in wild alpine plants proceeds at
normal levels or higher. This is one of the reasons to suspect that with
sufficiently intense, around-the-clock illumination, plants in spaceflight
conditions may not require protection from the entire ultraviolet spectrum.
    Further research must be conducted on the use of parts of the ultraviolet
spectrum to increase the resistance of plants to other cosmic radiation
factors. Orig. art. has: 7 tables. [ATD PRESS: 4091-F]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 018 / OTH REF: 004

Card 3/3

L 44578-66   EWT(m)/EWP(j)/T   IJP(c)   WW/RM

ACC NR: AP6015660 *(A)* SOURCE CODE: UR/0413/66/000/009/0073/0073

INVENTOR: Frunze, N. K.; Berlin, A. A.; Braynes, M. Ya.; Shaydurova, N. K.

ORG: none

TITLE: Method of obtaining compositions suitable for photopolymerization.
Class 39, No. 181280

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 73

TOPIC TAGS: photopolymerization, copolymer, polymerization initiator,
photosensitivity, oligoether

ABSTRACT: An Author Certificate has been issued for a method of obtaining
compositions suitable for photopolymerization using the acrylic copolymer series,
an oligorhythmic compound, a polymerization initiator, and a sensitizer. To expand
the variety of photosensitive compositions, a butylmethacrylate copolymer with
methacrylamide is used as the copolymer, and an oligoether such as dimethacrylate-

Card 1/2   UDC: 771. 531. 678. 744. 32-134. 548. 3:66. 095. 265

L 44578-66

ACC NR: AP6015660

bis-diethyleneglycolphthalate is suggested as the olygorhythmic compound. [Transla-[NT]

tion]

SUB CODE: 11/ SUBM DATE: 21Oct63/

Card 2/2

SHAYDYUK, V.K., inzhener.

Alterations in the properties of plugging cement as a result of storage time. TSement 17 no.4:22 Jl-Ag '51.   (MLRA 9:8)

1. TSementnyy zavod imeni Stalina.
                    (Cement--Storage)

KHODOROV, Ye.I., kandidat tekhnicheskikh nauk; KRASHENINNIKOV, N.N.,
    inzhener; SHAYDYUK, V.K., inzhener.

    Heat exchanger for high-temperature zones of rotary kilns.
    TSement 20 no.3:6-9 My-Je '54.   (MLRA 7:7)
        (Kilns, Rotary) (Heat exchangers)

SHAYER, G.

Yellow-green light filter. Sov.foto 22 no.1:32 Ja '62.   (MIRA 15:1)

(Photography--Light filters)

SHAYER, Ye.G.

Practical princples of color microphotography. Arkh.anat.gist.
i embr. 32 no.1:68-74 Ja-Mr '55.   (MLRA 8:9)

1. Iz Ukrainskogo eksperimental'nogo instituta glaznykh bolezney
im. akad. V.P. Filatova (direktor Geroy Sotsialisticheskogo Truda
akad. V.P. Filatov)
        (MICROSCOPY,
            color microphotography)
        (PHOTOMICROGRAPHY,
            color microphotography)

USSR/Human and Animal Morphology - Normal and Pathological.   S
           Organs of the Senses.

Abs Jour   : Ref Zhur Biol., No 23, 1959, 106017

Author   : Shayer, Ye.G.
Inst   : -
Title   : Photography of the Fundus Oculi

Orig Pub   : Oftalmol. zh., 1956, No 4, 247-253

Abstract   : The camera of Nordenson reconstructed by the author,
              and its application for black-and-white, color and ster-
              eoscopic photography of the fundus oculi by the use of
              the cinematographic bulb as the source of light, and
              employment of availabel domestic photographic material,
              is described. A succesful experiment of photgraphy of
              the fundus oculi without any special camera by means of
              the Gullstrand ophtalmoscope on the ocular of which a
              small size reflex camera is attached ("Zenith", "Practi-
              flex", "Exacta") is reported. In the author's opinion

Card 1/2

USSR/Human and Animal Morphology - Normal and Pathological.   S

Abs Jour   : Ref Zhur Biol., No 23, 1953, 106017

              it is necessary to construct a special apparatus which
              can be used simultaneously for inspection and photogra-
              phy of the fundus oculi. -- I.S. Gil'bo

Card 2/2

SHAYER, Ye.G.

Use of flash bulbs in photgraphing the anterior portion of the eye.
Oft.zhur. 13 no.4:244-251 '58 (MIRA 11:8)

1. Iz Ukrainskogo nauchno-issledovatel'skogo eksperimental'nogo
instituta glaznykh boleezney i tkanevoy terapii im. akad. V.P. Filatova
(direktor - prof. N.A. Puchkovskaya).
            (EYE--EXAMINATION)
            (PHOTOGRAPHY, MEDICAL)

SHAYER, Ye.G.

Use of pulse lamps for certain types of medical and anthropological
photography. Usp.nauch.fot. 6:1930199 '59.   (MIRA 13:6)
    (Photography--Scientific applications)
    (Electric discharge lighting)

25(0) 17(7)   SOV/77-4-2-13/18

AUTHOR   Shayer, Ye.G.

TITLE   Reviews (Obzory) The Use of Contemporary Photographic
              Techniques in Ophthalmology (Primeneniye sovremennoy
              fotograficheskoy tekhniki v oftalmologii)

ABSTRACT: The author reviews briefly the Soviet and non-Soviet
              literature available on the use of photography in
              ophthalmology. He divides the review into four main
              groups: 1) reproduction of a visual picture of di-
              seases of different parts of the eye for documenting
              the results of treatment or observing the dynamics of
              the pathological process. This group includes photo-
              graphy of the frontal section of the eye, which can be
              done by special equipment such as the Zeiss eye micros-
              cope used for examination and photographic purposes

              Card 1/5

Reviews; The Use of Contemporary Photographic Techniques in
Ophthalmology

/ Ref. 1 /; electronic pulse lamps and Contax, Leica,
Exakta or Robot miniature cameras are normally used with
it. For small enlargements filament bulbs /2,3 /, flash
bulbs / 4 / and especially electronic pulse lamps are
used for illumination. A special device including a
Zenit camera and an IFK-120 pulse lamp designed in the
Ukrainskiy nauchno-issledovatel'skiy institut glaznykh
bolezney i tkanevoy terapii im. akad. V.P. Filatova
(Ukrainian Scientific Research Institute for Eye Di-
sease and Tissue Therapy imeni Academician V.P. Fila-
tov) makes it possible to photograph the eye using
beams of light of various width, on the principle of
a slot lamp; the photographs it produces have great
detail. The FA-5 xenon arc lamp is used in the USA
for similar purposes. Photographing the corner of the
frontal chamber of the eye is accomplished with a

Card 2/5

Reviews; The Use of Contemporary Photographic Techniques in Ophthalmology

gonioscope, a miniature camera and a slot lamp. Lumines-
cent analysis, the keratographic method, and stereo-
photography of the eye are then discussed. Turning to
photography of the fundus oculi, the author says the most
widely used camera for this purpose is the Nordenson
from the firm of Zeiss which has an optical and illumina-
ting system making it possible to illuminate the fundus
oculi evenly through the peripheral part of the dilated
pupil of the patient's eye, while an image of the parts
being photographed is obtained through the central part
of the pupil. Many authors have suggested alternative
forms of illumination for this camera including a cine-
projection lamp, an arc lamp with zirconium electrodes,
an FA-5 xenon arc lamp, and an electronic pulse lamp.
The author finally mentions a few non-Soviet cameras
designed for photographing the fundus oculi including

Card 3/5

Reviews; The Use of Contemporary Photographic Techniques in Ophthalmology

models developed at the VEB Karl Zeiss works in Jena (GDR) and a portable camera from Japan; 2) this group deals with the use of photographs of the eye to measure certain values otherwise difficult to make on the living eye due to its great mobility. The most fruitful method of studying the optical system of the eye is photo-ophthalmometry, developed by Soviet scientist Professor A.I. Dashevskiy; it consists in directing a narrow beam of light onto the patient's eye, whereby the optical system of the eye becomes visible, as the cornea and the crystalline lens disperse a certain part of the light passing through them. When this method is perfected it can be used to study keratoconus. The stereophotogrammetric method has also been used to measure the size of the exophthalm, to determine the curvature of the eye ball when selecting contact lenses

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Reviews; The Use of Contemporary Photographic Techniques in Ophthalmology

and the convexity of the nipple of the optic nerve on the fundus oculi. Photography is also used to measure and examine the pupil and the angle of squints. 3) this group includes the use of infra-red photography to examine parts of the eye otherwise invisible; 4) this group includes the use of photography in the preparation of medical handbooks (for illustrative purposes). In the author's opinion the review shows that photography can be used in ophthalmology to great advantages. There are 14 photographs and 70 references, 23 of which are Soviet, 8 American, 1 Australian, 4 English, 10 English-language, 21 German and 3 French.

ASSOCIATION: Odessa, Institut glaznykh bolezney, im. akad. V.P. Filatova (Odessa, Institute of Eye Diseases imeni Academician V.P. Filatov)

Card 5/5

SHAYER, Ye.G.

Photography of the cavities of the human body. Zhur. nauch.i prikl.
fot. i kin. 5 no.6:457-461 N-D '60.   (MIRA 14:1)
        (Photography, Medical—Equipment and supplies)

SHAYER, Ye.G.

Photographing Purkinje images.   Oft. zhur. 15 no.3:171-175 '60.
(MIRA 14:5)

1. Iz Ukrainskogo nauchno-issledovatel'skogo eksperimental'nogo
instituta glaznykh bolezney i tkanevoy terapii imeni akademika
V.P.Filatova (direktor - prof. N.A.Puchkovskaya).
(PHOTOGRAPHY, MEDICAL)
(EYE, INSTRUMENTS AND APPARATUS FOR)

SHAYER, Yevgeniy Georgiyevich; REZVETSOVA, G.A., red.

[Use of photography in medicine] Primenenie fotografii
v meditsine. Moskva, Meditsina, 1964. 300 p.
(MIRA 17:11)

NESTURKH, M.F., GLADKOVA, T.D., PORSHNEV, B.F.; SHAYER, Ye.G., NIKITYUK,
B.A., PAVLOV, B.K.; DMITRIYEV, Ye.A.; LINKOVSKIY, Zh.B.;
PLOKHINSKIY, N.A.; LAVROVA, I.G.; BORISOV, G.V.

Brief news. Biul. MOIP. Otd. biol. 70 no.3:127-140 My-Je '65.
(MIRA 18:10)

SHAYERMAN, A. YU, and BILIK, SH. M.

Nekotorye tekhnologicheskie parametry protsessa zhidkostnoi polirovki. (Vestn. Mash., 1949, no. 6, p. 54-56)

Some technological processes of liquid polishing.

DLC: TN4, V4.

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

KIKIS, A.A., inzh.; SHAYERMAN, Yu., zasluzhennyy deyatel' nauki i tekhniki, doktor tekhn. nauk, prof.

Lightweight ceilings (letter to the editor). Biul. tekh. inform.
4 no.8:29 Ag '58.   (MIRA 11:8)
                    (Ceilings)   (Lightweight concrete)

SHAYETUN, S. I.

USSR/Engineering - Machine tools

Card 1/1   Pub. 103 - 18/29

Authors   : Glagolev, N. A., and Shaetun, S. I.

Title   : A device for grinding conical surfaces

Periodical : Stan. i instr. 10, 32-33, Oct 1954

Abstract   : A description is presented of a device equipped with an electric motor for
             grinding conical surfaces. Drawings depicting the disposition of components
             of the above mentioned device are given.

Institution : ...

Submitted   : ...

SHAYEVA, Yc.V.

Gravimetric method for determining tungsten in concentrates and in alloy steels. V. V. Stepin and P. V. Shaeva. Zavod. laya. Lab. 21, 140-51(1955).—The det. of W is based on the formation of a ppt. of tungstic acid with pyramidon. Details are given for detg. W in scheelite and in alloy steel.
W. M. Sterling

SHAYEVSKIY, Yu.I.; YUFEROV, Yu.K.

Present status of the development of the Shkapovo oil field.
Geol. nefti i gaza 7 no.10:14-21 O '63.   (MIRA 17:10)

1. Neftepromyslovoye upravleniye Aksakovneft'.

SHAYEVICH, A., inzh.

Reducing exhaust detonation of the ZIL-158 motorbus. Avt. transp. 37
no.2:25 F '59.   (MIRA 13:1)

1.Moskovskiy avtozavod im. Likhacheva.
            (Automobile exhaust gas)

SHAYEVICH, A.; ZUBAREV, A.; KARAVAYEV, B.

Engine-cooling system of the ZIL-130 motortruck. Avt. transp.
41 no.9:45-47 S '63.
(MIRA 16:10)

SHAYEVICH, A·B.

USSR.

Errors in the chemical analysis of steel and iron. A. B. Shaevich (Ural Inst. Ferrous Metals, Sverdlovsk). Zhur. Anal. Khim. 9, 373-0(1954).—A discussion of the relation between systematic and adventitious errors in analyses. Systematic errors are of the same order of magnitude as adventitious errors. They exceed the latter when averages are taken. Thus, the systematic errors need closer attention.
M. Hosch

SHAYEVICH, A. B.

JSSR/Chemistry — Spectral analysis

Card 1/1   Pub. 43 - 40/97

Authors   : Shaevich, A. B.

Title   : About the methodology in studying the standards for spectral analysis

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, 268-269, Mar-Apr 1954

Abstract   : The values of occasional and systematic errors in chemical analysis of steel were evaluated and it was found that these values exceed the metrologically permissible values. A method is introduced for spectral determination of the chemical composition of samples according to primary synthetic standards. The occasional and systematic errors of the analysis results obtained by means of the new method were found to be much smaller than the errors of other conventional analysis methods. The method also takes into consideration the metallurgical laws of heterogeneity formation which makes it possible to investigate even the most hazardous sections and thereby reduce the number of tested samples and elements.

Institution : The Ural Scientific Research Institute of Non-Ferrous Metals
Submitted   : .....

SHAYEVICH, A.B.   SHAYEVICH, A.B.

1224. The spectrographic analysis of ferrochrome for carbon, phosphorus and silicon. A. B. Shaevich. Report of Symposium: "Sovrem. Metody Anal. Metall. al., Metallurgizdat," 1955, 78–82; Ref. Zhur., Khim., 1956, Abstr. No. 20,367.—In connection with the issue of standard ferrochromes, a method is proposed for the spectrographic determination of C, P and Si. Carbon is determined by using a condensed spark, with aluminium electrodes and a spark gap of 2·5 mm. The lines used are—C 2296·0 - Cr 2205·6 A. It is possible to determine from 0·02% of C. The mean square error for three-fold photographing of the spectra is 3%. To determine P, the spectrum is excited by an a.c. arc at 15 amp., the counter electrode being graphite. The lines used are—P 2149·1 - Cr ≃ 2140·4 A. It is possible to determine from 0·02% of P, with a mean square error of ≃ 7%. The silicon spectrum is excited at 3 amp. with an iron counter-electrode, slit width 0·01 mm. With a silicon content < 1% the lines used are—Si 2506·9 - Fe 2507·9 A; with a higher content, Si 2435·2 - Fe 2443·9 A. The error is 3%. A medium quartz spectrograph is used.

C. D. KOPKIN

GRISHCHENKO, M.P.; SHAYEVICH, A.B.

Spectrum analysis of the electrolytes used in zinc and nickel
plating baths. Izv.AN SSSR.Ser.fiz.19 no.2:203-204 Mr-Ap '55.
(Tartu--Spectrum analysis--Congresses)